

Deady in view of Politzer

Claims 1, 3-8, and 10 under 35 U.S.C. 103(a) as being unpatentable over Deady in view of Politzer. Applicant respectfully traverses the rejections for the reasons as follow.

Claim 1 recites ***a prophy chip, mounted on a top of a dental rotary instrument*** for cleaning, polishing, and burnishing teeth, comprising:

a cup-shaped core with canopy (semispherical), cylindrical, cupped, conical, inverted conical, or disk profile, the core comprising an exterior wall and a hollow interior region;

***a shaft containing a connecting means for connecting the prophy chip to the dental rotary instrument to avoid vibration around a rotation axis of the core during rotation;***

a hydrophilic grindstone sponge covering the exterior wall of the core, wherein the hydrophilic grindstone sponge comprises a grindstone therein; and

an latch plate fixing the hydrophilic grindstone sponge to the core;

wherein the hydrophilic grindstone sponge is immersed in water prior to operation or absorbed saliva during operation without using a polishing paste to dissipate heat generated by friction.

Deady discloses a washing device comprising a hose 6 connected at one end to a faucet 5 by a connector 7 and a nozzle 10 connected at the other end. A sleeve-like handle 13 is provided over the hose 6 and compressing the hose 6 so as to embrace a stem 11 of the nozzle 10. A rubbing element 12 is secured to the handle 13, wherein a pocket 16 may be provided in the rubbing element 12 for holding a cleaning agent. Politzer describes an abrasive article.

Deady does not teach or suggest a prophy chip or a dental rotary instrument. In this regard, on page 3 of the Office action, the Examiner notes that "a prophy chip, mounted on a top ..." in the preamble has not been given patentable weight. Instead, the Examiner asserts that the preamble states the intended use of the structure. Applicant respectfully disagrees with this construction of the claims for the reasons as follow.

As noted in MPEP 2111.02, any terminology in the preamble that limits the structure of the claimed invention must be treated as a claim limitation. *See, e.g., Corning Glass Works v. Sumitomo Elec. U.S.A., Inc.*, 868 F.2d 1251, 1257, 9 USPQ2d 1962, 1966 (Fed. Cir. 1989) (The determination of whether preamble recitations are structural limitations can be resolved only on review of the entirety of the application "to gain an understanding of what the inventors actually invented and intended to encompass by the claim."); *Pac-Tec Inc. v. Amerace Corp.*, 903 F.2d 796, 801, 14 USPQ2d 1871, 1876 (Fed. Cir. 1990) (determining that preamble language that constitutes a structural limitation is actually part of the claimed invention).

For example, in *In re Stencel*, 828 F.2d 751, 4 USPQ2d 1071 (Fed. Cir. 1987), the claim at issue was directed to a driver for setting a joint of a threaded collar; however, the body of the claim did not directly include the structure of the collar as part of the claimed article. The examiner did not consider the preamble, which did set forth the structure of the collar, as limiting the claim.

The court found that the collar structure could not be ignored. While the claim was not directly limited to the collar, the collar structure recited in the preamble did limit the structure of the driver. **"[T]he framework - the teachings of the prior art - against which patentability is measured is not all drivers broadly, but drivers suitable for use in combination with this collar, for the claims are so limited."** *Id.* at 1073, 828 F.2d at 754. MPEP 2111.02.

[Emphasis added].

In claim 1, the preamble recites a prophy chip mounted on a top of a dental rotary instrument for cleaning, polishing, and burnishing teeth. Thus, as in *In re Stencel*, the claims are directed to an apparatus (in the present application, a prophy chip; in *In re Stencel* a driver) suitable for use in combination with something else (in the present application, a dental rotary element; in *In re Stencel*, a collar). In particular, the claims are directed not to all "prophy chips" broadly, but prophy chips for use in combination with a dental rotary element.

Furthermore, the body of the claim recites a shaft containing a connecting means for connecting the prophy chip to the dental rotary instrument to avoid vibration around a rotation axis of the core during rotation. In other words, the preamble of claim 1 provides antecedent basis for

terms used later in the body of the claim. Moreover, the preamble provides structure necessary to understand the recited elements “connecting means” and “rotation axis.”

The court has afforded patentable weight to limitations found in the preamble for just this reason (i.e., providing antecedent basis for terms used later in the body of the claim), finding such limitations “give meaning to the claim and properly define the invention.” *Gerber Garment Technology, Inc. v. Lectra Sys., Inc.*, 916 F.2d 683, 688, 16 USPQ2d 1436, 1441 (Fed. Cir. 1990).

Applicant therefore respectfully submits that the prophy chip and dental rotary instrument of the preamble should be given patentable weight. In this regard, Deady clearly does not teach “a prophy chip” suitable for mounting on “a dental rotary instrument,” or “a connecting means for connecting the prophy chip to the dental rotary instrument to avoid vibration around a rotation axis of the core during rotation,” as required by claim 1. To the contrary, Deady teaches a cleaning device for connecting to a faucet.

In addition, claim 1 recites a shaft containing a connecting means for connecting the prophy chip to the dental rotary instrument to avoid vibration around a rotation axis of the core during rotation. However, the alleged “shaft” 13 of Deady does not contain the alleged “connecting means” 7, as asserted page 2 of the Office action. This is evident in Fig. 1 of Deady, which clearly shows that handle 13 and connector 7 are separated from each other at the opposite ends of hose 6.

Furthermore, in light of Deady’s express teaching that connector 7 is for connecting one end of the hose 6 to a faucet, while handle 13 is for connecting the other end of the hose 6 to nozzle 10, there would be no reason to modify Deady to read onto claim 1 except for Applicant’s own disclosure.

Politzer is not believed to cure any of the deficiencies noted above in Deady.

Applicant therefore respectfully submits that even when taken combination, Deady and Politzer fail to teach or suggest all of the limitations of claim 1. For at least this reason, Applicant

respectfully submits that a *prima facie* case of obviousness cannot be established in connection with claim 1. Furthermore, as it is Applicant's belief that a *prima facie* case of obviousness is not established for claim 1, the Examiner's arguments in regard to the dependent claims will not be addressed here. Allowance of claims 1-10 is respectfully requested.

Deady in view of Politzer and Hirota

Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Deady in view of Politzer, and further in view of Hirota. As noted above, it is 1 belief that claims 2-4 are allowable at least by virtue of their dependency from claim 1. Furthermore, Hirota is not believed to cure the deficiency noted above in Deady in view of Politzer. Allowance of claims 2-4 is respectfully requested.

Applicant further notes that Deady is directed to a washing device, while Hirota is directed to an immunopotentiator useful for recovering immunity and keeping health. These are not in the same or even proximate fields of technology. Applicant therefore respectfully submits the Deady and Hirota are not analogous prior art. In particular, Hirota is not believed to be reasonably pertinent to Deady, or vice versa. Furthermore, given the fundamental differences in technologies, purposes, and physical embodiments of Deady/Politzer and Hirota, Applicant respectfully submits that there would be no reasonable expectation of success in the modifying Deady/Politzer according to Hirota's teaching. Applicant submits that claims 2-4 are allowable for this alternate and independent reason.

St. Cyer in view of Politzer

Claims 1 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over St. Cyer in view of Politzer. Applicant respectfully traverses the rejections for the reasons as follow.

Applicant respectfully submits that the rejections over St. Cyer in view of Politzer fail for at least the same reasons set forth above in connection with Deady.

In particular, St. Cyer disclose a mop comprising a support member 2 that is a hollow body, a sponge 26 adhering to the support member 2, and a handle 16 connected to support member 2 by a socket 4. Politzer describes an abrasive article.

For the reasons discussed above, Applicant respectfully submits that the prophylaxis chip and dental rotary instrument of the preamble should be given patentable weight. In this regard, St. Cyer clearly does not teach "a prophylaxis chip" suitable for mounting on "a dental rotary instrument," or "a connecting means for connecting the prophylaxis chip to the dental rotary instrument to avoid vibration around a rotation axis of the core during rotation," as required by claim 1. To the contrary, St. Cyer teaches a mop useful in the cleaning of tubs.

Politzer is not believed to cure any of the deficiencies noted above in St. Cyer. Applicant therefore respectfully submits that even when taken combination, St. Cyer and Politzer fail to teach or suggest all of the limitations of claim 1. For at least this reason, Applicant respectfully submits that a prima facie case of obviousness cannot be established in connection with claim 1. Furthermore, as it is Applicant's belief that a prima facie case of obviousness is not established for claim 1, the Examiner's arguments in regard to the dependent claims will not be addressed here. Allowance of claims 1 and 9 is respectfully requested.

#### Conclusion

For the reasons described above, the Applicant believes that the application is now in condition for allowance and respectfully requests so.

Respectfully submitted,

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